

Appl. No. : 10/050,339
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AMENDMENTS TO THE CLAIMS

Changes are shown by strikethrough (for deleted matter) and underlining (for added matter). Claims 1-18, 33-34, and 40-41 remain as originally filed. Claims 42 and 43 have been added herein.

1. (Original) A housing for protecting an integrated circuit device comprising:
a molded body encapsulating the integrated circuit device; and
at least one magnetically permeable foil applied to an outer surface of the molded body.
2. (Original) The housing of Claim 1, wherein the integrated circuit device comprises at least one magnetic thin film.
3. (Original) The housing of Claim 1, wherein the molded body comprises an organic material.
4. (Original) The housing of Claim 3, wherein the organic material comprises an epoxy mold compound.
5. (Original) The housing of Claim 1, wherein the molded body encapsulates the integrated circuit device on a plastic substrate.
6. (Original) The housing of Claim 5, wherein the plastic substrate comprises a ball grid array substrate.
7. (Original) The housing of Claim 5, wherein wire bonds extend between the device and electrically conductive traces on the plastic substrate.
8. (Original) The housing of Claim 5, wherein solder bumps on the device are in contact with electrical traces on the plastic substrate.
9. (Original) The housing of Claim 1, further comprising electrical leads protruding from the molded body.
10. (Original) The housing of Claim 9, wherein the electrical leads comprise conductive traces on a plastic substrate.
11. (Original) The housing of Claim 1, wherein the integrated circuit device comprises a plurality of integrated circuit dies.

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12. (Original) The housing of Claim 1, wherein the magnetically permeable foil applied to the outer surface of the molded body is approximately parallel to a major surface of the integrated circuit device.

13. (Original) The housing of Claim 1, further comprising a layer of adhesive between the outer surface of the molded body and the at least one magnetically permeable foil.

14. (Original) The housing of Claim 1, wherein at least one outer surface of the molded body comprises a recess designed to receive the magnetically permeable foil.

15. (Original) The housing of Claim 14, wherein the at least one outer surface of the molded body further comprises an overhang along at least a portion of a perimeter of the recess, the overhang providing a mechanical means to hold the magnetically permeable foil within the recess.

16. (Original) The housing of Claim 15, wherein the overhang comprises at least one sloped tab protruding into the recess.

17. (Original) The housing of Claim 1, wherein the magnetically permeable foil is selected from the group consisting of nickel-iron based alloys, cobalt-iron based alloys, nickel-cobalt based alloys, and amorphous ferromagnetics.

18. (Original) The housing of Claim 1, wherein the magnetically permeable foil has a thickness between about 1 μm and 1000 μm .

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

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31. (Cancelled)
32. (Cancelled)
33. (Original) An integrated circuit package, comprising:
 - an integrated circuit die;
 - a molded body encapsulating the die; and
 - a magnetic shield layer extending over an outer surface of the molded body and parallel to a major surface of the die, the magnetic shield layer being electrically insulated from the die.
34. (Original) The integrated circuit package of Claim 33, wherein the magnetic shield layer is mechanically trapped within a molded recess on an outer surface of the molded body.
35. (Cancelled)
36. (Cancelled)
37. (Cancelled)
38. (Cancelled)
39. (Cancelled)
40. (Original) An integrated circuit package comprising an encapsulant surrounding an integrated circuit die, the encapsulant including a recess on an outer surface thereof, and the recess configured for receiving and mechanically retaining a magnetic shield foil.
41. (Original) The integrated circuit package of Claim 40, wherein the encapsulant comprises overhanging tabs protruding into the recess for removably trapping the foil within the recess.
42. (New) The housing of Claim 1, wherein the magnetically permeable foil is removable.
43. (New) The integrated circuit package of Claim 33, wherein the magnetic shield layer is removably attached to the outer surface of the molded body.